

(3D) Body Processing
Industry Connections Activity Initiation Document (ICAID)
Version: 2.0, 04 December 2017

IC15-004-02 Approved by the IEEE-SASB 6 December 2017

Instructions

- Instructions on how to fill out this form are shown in red. It is recommended to leave the instructions in the final document and simply add the requested information where indicated.
- **Shaded Text** indicates a placeholder that should be replaced with information specific to this ICAID, and the shading removed.
- Completed forms, in Word format, or any questions should be sent to the IEEE Standards Association (IEEE-SA) Industry Connections Committee (ICCom) Administrator at the following address: industryconnections@ieee.org.
- The version number above, along with the date, may be used by the submitter to distinguish successive updates of this document. A separate, unique Industry Connections (IC) Activity Number will be assigned when the document is submitted to the ICCom Administrator.

1. Contact

Provide the name and contact information of the primary contact person for this IC activity. Affiliation is any entity that provides the person financial or other substantive support, for which the person may feel an obligation. If necessary, a second/alternate contact person's information may also be provided.

Name: Luciano C. Oviedo
Email Address: luciano.c.oviedo@intel.com
Phone: Phone
Employer: Intel Corporation
Affiliation: Intel Corporation

Name: Carol McDonald
Email Address: carol@gneissconcept.com
Phone: Phone
Employer: Gneiss Concept
Affiliation: Gneiss Concept

2. Participation and Voting Model

Specify whether this activity will be entity-based (participants are entities, which may have multiple representatives, one-entity-one-vote), or individual-based (participants represent themselves, one-person-one-vote).

Specify: "Entity-Based"

3. Purpose

3.1. Motivation and Goal

Briefly explain the context and motivation for starting this IC activity, and the overall purpose or goal to be accomplished.

Describe the motivation and goal.

- To enable a seamless and secure pipeline of deliberate sensing, capturing, digitizing, sharing and immersion of data-based, body model and body wear experiences...anywhere, anytime (ie, data-sumer), to create an ecosystem;
- Key elements may include ... confidentiality, integrity, availability, flexibility to digitize human for any solution, static, dynamic, more TBD
- This exploration will include:
 - Identify and classify types of 3D body processing technologies;
 - Identify and classify use cases of 3D body processing;
 - Identify gaps in existing nascent standards and recommended practices as 3D body processing spreads beyond first adopters;
 - Identify need and propose PARs for new standards and best practices for 3D body processing and adjacent technologies (like 2D augmented reality, Web3D, Motion Capture);
 - Identity special requirements for quality, file formats, footwear, communications/security/privacy, and mega technologies impact

3.2. Related Work

Provide a brief comparison of this activity to existing, related efforts or standards of which you are aware (industry associations, consortia, standardization activities, etc.).

Describe the related work.

- There are a variety of standards efforts around 2D augmented reality that include 2D human modeling but none that we know of for 3D body characterization, modeling and processing;
- Analysis of industry standards including ISO and other organizational standards related to clothing, scanning, including but exclusive to: ISO 8559-1:2017, ISO 7250-1:2017, ISO 20685-1:2010, ISO/DIS 20685-1, ISO 20685-2:2015,ISO18825-1&2:2016, ASTM D5219-15, ISAK, NATO-STANAG 2177, and NATO-STANAG 2339

3.3. Previously Published Material

Provide a list of any known previously published material intended for inclusion in the proposed deliverables of this activity.

List the previously published material, if any.

- White paper #1: IEEE Industry connections, 3D Body Model Processing Initiative, An Introduction
- Second white paper scheduled for December 2017 completion
- Presentations – CES 2017, 3D Body Tech 2016, 3D Body Tech 2017

3.4. Potential Markets Served

Indicate the main beneficiaries of this work, and what the potential impact might be.

Describe the potential markets.

- There are several potential markets where standards related to 3D body processing will add value:
 - Consumers in
 - Fashion
 - Retail
 - Health/wellness
 - Athletics
 - Etc.
 - Suppliers at various layers
 - User-facing/product offering Supplier
 - Platform Suppliers
 - Application Software Suppliers
 - Operating System Suppliers
 - Application Processor Suppliers
 - Etc.

4. Estimated Timeframe

Indicate approximately how long you expect this activity to operate to achieve its proposed results (e.g., time to completion of all deliverables).

Expected Completion Date: Q4/2019

IC activities are chartered for two years at a time. Activities are eligible for extension upon request and review by ICCOM and the IEEE-SA Standards Board. Should an extension be required, please notify the ICCOM Administrator prior to the two-year mark.

5. Proposed Deliverables

Outline the anticipated deliverables and output from this IC activity, such as documents (e.g., white papers, reports), proposals for standards, conferences and workshops, databases, computer code, etc., and indicate the expected timeframe for each.

Specify the deliverables for this IC activity.

Deliverables for this activity include:

- Sub-group reports on Quality, File Formats, Footwear, Communications/Security/Privacy, and Mega Technologies Impact
- White papers - Standard reviews, Industry questionnaires
- Mktg collateral (ie, CES press release, Logos/Poster, Grand Challenges))
- Quarterly Meetings/Workshops;
- Documents outlining agreed upon industry requirements for standards
- Proposal for standard(s) (e.g. P3141) on 3D body processing;
- Liaisons/Collaborations with ISO, Web 3D, 3DRC
- IEEE webpage with supporting sub pages

6. Funding Requirements

Outline any contracted services or other expenses that are currently anticipated, beyond the basic support services provided to all IC activities. Indicate how those funds are expected to be obtained (e.g., through participant fees, sponsorships, government or other grants, etc.). Activities needing substantial funding may require additional reviews and approvals beyond ICom.

No additional funding requests are anticipated for services beyond the standard services provided for IC programs. Activity members will provide any needed support for hosted meetings, marketing activities that exceed basic IC support.

Examples include:

- Quarterly F2F activity meetings (time/locations TBD) – activity members will be solicited to host/sponsor any in person meetings at their company facilities or other industry events
- Marketing support beyond that provided by IEEE-SA – activity members will coordinate with IEEE for any additional marketing initiatives in support of the IC activity – examples envisioned include:
 - Consumer Electronic Show marketing package (press release, media event, demo, keynote, etc.)
 - Others industry channels (ie, 3D Body Tech, PI Apparel, keynote, etc.)
 - Workshops

7. Management and Procedures

7.1. IEEE Sponsoring Committee

Indicate whether an IEEE sponsoring committee of some form (e.g., an IEEE Standards Sponsor) has agreed to oversee this activity and its procedures.

Has an IEEE sponsoring committee agreed to oversee this activity?: Yes

If yes, indicate the sponsoring committee's name and its chair's contact information.

Sponsoring Committee Name: IEEE Digital Senses Initiative (DSI)

Sponsoring Committee Chair's Name: Yu Yuan

Sponsoring Committee Chair's Email Address: y.yuan@ieee.org

Sponsoring Committee Chair's Phone: [+1 917 624 8316](tel:+19176248316)

Additional sponsoring committee information, if any.

7.2. Activity Management

If no IEEE sponsoring committee has been identified in 7.1 above, indicate how this activity will manage itself on a day-to-day basis (e.g., executive committee, officers, etc).

Briefly outline activity management structure.

The activity will be managed by an executive committee as defined in the activity's policies and procedures.

7.3. Procedures

Indicate what documented procedures will be used to guide the operations of this activity; either a) modified baseline *Industry Connections Activity Policies and Procedures*, or b) Sponsor or Working Group policies and procedures accepted by the IEEE-SA Standards Board. The chosen policies and procedures must be reviewed by ICCOM

Will use the baseline Industry Connections Activity Policies and Procedures.

8. Participants

8.1. Stakeholder Communities

Indicate the stakeholder communities (the types of companies or other entities, or the different groups of individuals) that are expected to be interested in this IC activity, and will be invited to participate.

See section 3.4

8.2. Expected Number of Participants

Indicate the approximate number of entities (if entity-based) or individuals (if individual-based) expected to be actively involved in this activity.

We have approximately 25 entities across the ecosystem currently involved, see section 8.3 for a detailed listing. Engagement with the 3D Retail Coalition planned for 2018 is expected to expand the participation further.

8.3. Current Participants

Provide a list of the entities or individuals that will be participating from the outset. It is recommended there be at least three initial participants for an entity-based activity, or five initial participants (each with a different affiliation) for an individual-based activity.

Use the following table for an entity-based activity:

The following table provides a list of current participants. We are actively reaching out to companies and universities and expect more to join us, for example, outreach at the recent 3D Body Tech conference yielded requests for information and/or participation from the following:

- Google, Nike, Life Fitness, Under Armour, Elaszizer, P&G, Pacific Northwest National Labs, and Lolulemon
- Concordia University, Shenzhen University, Juangan University, The University of Manchester, University of Texas, Warsaw University of Technology, and University of Quebec at Montreal
- Software Tailoring, Ceitec, Perfitly, 3D Body Cloud, Shenzhen Esun Displau, Mojito 3D Studio, Mirage, NetVirta, Spiral Therapy, Cryos, Staramba GmbH,

Man3, Stefanka, Fashion Should Empower, entreDovovan, Tech Med 3D,
Spiral Physical Therapy, Bodi.me, Bodidata, Decathlon

Entity	Primary Contact	Additional Representatives
Entity Name	Contact Name Email Address Phone Number	Name, Email Address Name, Email Address
Intel Corporation	Luciano Oviedo, Luciano.C.Oviedo@intel.com	
Gneiss Concept	Carol McDonald carol@gneissconcept.com	
Biomechanics Institute of Valencia- UPV	Alfredo Ballester, alfredo.ballester@ibv.upv.es	Sandra Alemany sandra.alemany@ibv.upv.es Juan Carlos Gonzalez Juancarlos.gonzalez@ibv.upv.es
Bauerfeind	Henricus Fluthgraf, Henricus.fluthgraf@bauerfeind.com	
Texel	Maxim Feyukov maxim.fedyukov@gmail.com	
Sizestream	David Bruner, dbruner@sizestream.com	Joe Dixon, jdixon@sizestream.com
Target	Julianne Harris, julianne.harris@target.com	Alexis Kantor, alexis.kantor@target.com Sandra Gagnon Sandra.gagnon@target.com
National Institute of Advanced Industrial Science and Technology (AIST)	Masaaki Mochimaru, m-mochimaru@aist.go.jp	Makiko Kouchi m-kouchi@aist.go.jp
TrueFit	Amory Wakefield, awakefield@truefit.com	
Zelusfx	Dongsoo Han, dhan@zelusfx.com	
Silverdraft	Randy Rannow, randy@silverdraft.com	
Web3D WG co-chair	William Glascoe III, eosocxo@comcast.net	
Columbia	Tim Devlin, tdevlin@columbia.com	Sean Lane, slane@columbia.com
Metail	Yannis Douros, yannis@metail.co.uk	
Human Solutions	Tim Guenzel tim.guenzel@human-solutions.com	

ELSE Corp	Andrey Golub a.golub@else-corp.it	
Avametric	James O-Brien, job@avametric.com	
Quantacorp	Wim Devos, wim@quantacorp.io	
Kansas State University	Yingying Wu, Yingyingwu9@ksu.edu	
Gerber Technology	Amit Kumar, Amit.kumar@gerbertechnology.com	
Anthrotech.net	Bruce Bradtmiller, bruce@anthrotech.net	
3DMD	Chris Lane clane@3dmd.com	
CLO Virtual Fashion	Sean Inyong Jeon, sean@clo3D.com	
Dresscode A.I.	Eugene Karpov, ek@dresscode.ai	